

INTERNATIONAL COMMISSION FOR THE  
CONSERVATION OF ATLANTIC TUNAS



COMMISSION INTERNATIONALE POUR LA  
CONSERVATION DES THONIDES DE L'ATLANTIQUE

COMISION INTERNACIONAL PARA LA  
CONSERVACION DEL ATUN ATLANTICO

Madrid, 4 November 2024

## ICCAT CIRCULAR # 11306/2024

**SUBJECT: ICCAT CAPACITY BUILDING WORKSHOP ON TROPICAL TUNAS MANAGEMENT STRATEGY EVALUATION (MSE) (in-person 10-12 December 2024)**

Further to ICCAT Circular #10921 of 18 October 2024, I am pleased to inform you that the deadline for interested participants to send their applications to the ICCAT Secretariat to the attention of [Ms. Stasa Tensek](#) has been extended until **10 November 2024**, including a motivation letter, a support letter from the Head of Delegation or Head Scientist, and a brief CV that should highlight their: i) engagement in the Standing Committee on Research and Statistics (SCRS) activities; ii) experience in stock assessment modeling with demonstrating practical knowledge in the field; and iii) proficiency in R programming and a strong understanding of general concepts in population dynamics

This second workshop, which will be conducted in English, will not have interpretation, and **target scientists**, that wish to understand more about the technical aspects of MSE. This course will use the openMSE R packages (MSEtool, DLMtool, and SAMtool) for applied training in MSE.

This in-person course will take place in Itajaí, (Santa Catarina State, Brazil), with a **limit of 10 participants** and will only have an **in-person format**.

The selection of participants will be based on a rigorous evaluation of the applicants' curriculum vitae and professional experience. A Selection Panel, composed of the instructors and the ICCAT Secretariat, will carefully review each application and select participants according to the expertise listed above.

Additional information on these workshops can be found in the attachment.

Please receive the assurances of my highest consideration.

*Executive Secretary*



Camille Jean Pierre Manel

### **DISTRIBUTION:**

**– Commission Officers:**

Commission Chair:	E. Penas Lado	COC Chair:	D. Campbell
First Vice Chair:	Z. Driouich	PWG Chair:	N. Ansell
Second Vice Chair:	R. Chong	STACFAD Chair:	D. Warner-Kramer
SCRS Chair:	C. Brown		

**– Head Delegates / Head Scientists**

**Attachment:** Additional information on the capacity building workshop scientists on tropical tunas MSE.



## Workshop for scientists (MSE in practice)

**Date:** 10-12 December 2024

**Venue:**

Universidade do Vale do Itajaí (UNIVALI)  
R. Uruguaí, 458 - Centro,  
Itajaí - Santa Catarina,  
Brazil, 88302-901

**Instructors:** Drs. Rodrigo Sant'Ana and Bruno Mourato

The workshop is designed for scientists that wish to understand more about the technical aspects of MSE. This course will use the openMSE R packages (MSEtool, DLMtool, and SAMtool) for applied training in MSE.

### *Course outline for the workshop for scientists*

The course will cover the technical aspects of MSE in R, including conditioning OMs with fishery data, understanding and developing MPs, and evaluating the expected performance of the MPs using closed-loop simulation testing.

### *Course goals for the workshop for scientists*

Participants in this course will:

- Be familiar with the openMSE packages (MSEtool, DLMtool, and SAMtool), the open source R packages designed for efficient and transparent building of operating models and conducting MSE;
- Learn how to build OMs for a range of tuna fisheries spanning from data-poor to data-rich;
- Be familiar with a range of types of MPs, and learn how to develop custom MPs in MSEtool;
- Use MSE to evaluate the performance of MPs for a case study based on a chosen tuna fishery.

### *Number of participants and pre-requisites for the workshop for scientists*

This in-person course will take place in Itajaí, (Santa Catarina State, Brazil), with a **limit of 10 participants**.

The selection of participants will be based on a rigorous evaluation of the applicants' curriculum vitae and professional experience. A Selection Panel, composed of the instructors and the ICCAT Secretariat, will carefully review each application and select participants according to the following criteria:

1. The applicant must be from an ICCAT CPC with significant involvement in SCRS meetings.
2. The applicant must have experience in stock assessment modeling, demonstrating practical knowledge in the field.
3. The applicant must show proven proficiency in R programming and a strong understanding of general concepts in population dynamics, as these skills are crucial for participation in the workshop.

### *Duration for the workshop for scientists*

- The syllabus of this course will be in-person, and it is designed to run in three days (8 hours per day, totaling 24 hours).



<i>Module</i>	<i>Content</i>	<i>Total (hours)</i>
Introduction to the openMSE Packages	Welcome & overview of course	1st day (4 h)
	Introduction to the openMSE R packages (MSEtool, DLMtool, SAMtool)	
	Overview of key features, objects, and functions	
	Brief demonstration of conducting MSE using MSEtool	

<i>Module</i>	<i>Content</i>	<i>Total (hours)</i>
Details of the OMs	Operating Model objects	1st day (4 h)
	Overview of the population dynamics, fleet dynamics, observation, and implementation models	
	Key assumptions	
Developing OMs	Building OMs for data-poor fisheries	2nd day (4 h)
	Build OMs by importing stock assessments	
	Conditioning OMs with fishery data using the Rapid Conditioning Model (RCM)	
	Customizing the operating model	
Management Procedures (MPs)	Overview of MPs in the openMSE packages	2nd day (4 h)
	Data-limited MPs (DLMtool)	
	Data-moderate and data-rich MPs (SAMtool)	
	Brief overview of designing custom MPs	
Performance indicators (PIs)	Overview of PIs in the openMSE packages	3rd day (2h)
	Developing PIs management objectives	
	Brief overview of designing custom PIs	
Running the MSE	Examining Results	3rd day (6h)
	How PIs are used to rank or eliminate MPs	
	Running the MSE (case study)	
	Robustness Testing	



Madrid, 18 October 2024

## ICCAT CIRCULAR # 10921/2024

**SUBJECT: ICCAT CAPACITY BUILDING WORKSHOPS ON TROPICAL TUNAS MANAGEMENT STRATEGY EVALUATION (MSE)** (*online 28 October 2024/in-person 10-12 December 2024*)

I am pleased to inform you that the ICCAT Secretariat has recently awarded a short-term contract to a Consortium of experts on management strategy evaluation (MSE) to prepare and develop two capacity building workshops on MSE. Drs Rodrigo Sant'Ana and Bruno Mourato (from Brazil) will be the coordinators, assisted by Drs David Die and Shana Miller (from the USA), will be developing the materials and be the instructors of the workshops.

### **Workshop #1**

The first of these workshops will have an online format with interpretation in all three ICCAT official languages, and the **target are managers and stakeholders**. The workshop will follow a structured theoretical approach, providing participants with a clear understanding of MSE as a tool for evaluating fisheries management procedures. The workshop will include lectures, theoretical case studies, and discussions, ensuring that participants gain a deep conceptual understanding of MSE.

The workshop has been rescheduled to **28 October 2024 from 13:00 to 17:30 (Madrid time)**. There will be a 30-minute break at 15:00.

In order to organize the workshop and issue the online participant links, you are kindly requested to send to the Secretariat a list of delegates who will participate in the workshop by **23 October 2024**. Any late submission of the official delegation may cause a delay in providing access to participants to the workshop. All participants must also register for the workshop by **23 October 2024**, using the [online registration form](#) which will soon be available on our [meetings webpage](#).

### **Workshop #2**

The second of these workshops, which will be conducted in English, will not have interpretation, and **target scientists**, that wish to understand more about the technical aspects of MSE. This course will use the openMSE R packages (MSEtool, DLMtool, and SAMtool) for applied training in MSE.

This in-person course will take place in Itajaí, (Santa Catarina State, Brazil), with a **limit of 10 participants** and will only have an **in-person format**. Accordingly, interested participants shall send their applications to the ICCAT Secretariat to the attention of **Mrs Stasa Tensek** by **31 October 2024**, including a motivation letter, a support letter from the Head of Delegation or Head Scientist, and a brief CV that should highlight their: i) engagement in the Standing Committee on Research and Statistics (SCRS) activities; ii) experience in stock assessment modeling with demonstrating practical knowledge in the field; and iii) proficiency in R programming and a strong understanding of general concepts in population dynamics

The selection of participants will be based on a rigorous evaluation of the applicants' curriculum vitae and professional experience. A Selection Panel, composed of the instructors and the ICCAT Secretariat, will carefully review each application and select participants according to the expertise listed above.



Additional information on these workshops can be found in the attachment.

Please receive the assurances of my highest consideration.

*Executive Secretary*

Camille Jean Pierre Manel

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SCRS Chair:	C. Brown		

**- Head Delegates / Head Scientists**

**Attachment:** Additional information on the capacity building workshops for managers and stakeholders (#1) and scientists (#2) on tropical tunas MSE.



## **MSE Workshop for managers and stakeholders**

**Date:** 28 October 2024 (online, 13:00 hrs, Madrid time)

**Instructors:** Drs. David Die; Shana Miler; Rodrigo Sant'Ana and Bruno Mourato

The workshop will follow a structured theoretical approach, providing participants with a clear understanding of MSE as a tool for evaluating fisheries management procedures. The workshop will include lectures, theoretical case studies, and discussions, ensuring participants gain a deep conceptual understanding of MSE.

### ***Course outline for the workshop for managers and stakeholders***

The general idea is to provide a presentation of the philosophy, concepts and a case study based on first results observed and presented in the last ICCAT meeting from the western skipjack tuna MSE and tropical tunas multi-stock MSE.

### ***Course goals for the workshop for managers and stakeholders***

Participants in this course will:

- Be familiar with the potential of MSE methods for the management of tuna fisheries;
- Be familiar with the key concepts and terminology of MSE;
- Understand the concept of closed-loop simulation testing, and how MSE is used to evaluate the performance of alternative management procedures (MPs).

### ***Number of participants and pre-requisites for the workshop for managers and stakeholders***

- This online course has no limit on the number of participants, nor has any prerequisites.

### ***Duration for the workshop for managers and stakeholders***

- The syllabus of this course will be online, and it is designed to run for four hours.

<b><i>Module</i></b>	<b><i>Content</i></b>	<b><i>Time (hours)</i></b>
Introduction	Welcome to the participants	0.5
	Introduction of participants & instructors	
	Overview of course	
Introduction to MSE	What is a MSE ?	2.5
	What problems can MSE be used for?	
	How is MSE different from stock assessment?	
	<i>Coffee-break (20 minutes)</i>	
	Components of MSE (Management Objectives; OMs; MPs & Harvest control rules (HCR); Performance Indicators (PIs))	
A demonstration of MSE framework for western skipjack tuna	Brief introduction to the western skipjack tuna MSE	1
<b>Total hours</b>		<b>4</b>



## **Workshop for scientists (MSE in practice)**

**Date:** 10-12 December 2024

**Venue:**

Universidade do Vale do Itajaí (UNIVALI)  
R. Uruguai, 458 - Centro,  
Itajaí - Santa Catarina,  
Brazil, 88302-901

**Instructors:** Drs. Rodrigo Sant'Ana and Bruno Mourato

The workshop is designed for scientists that wish to understand more about the technical aspects of MSE. This course will use the openMSE R packages (MSEtool, DLMtool, and SAMtool) for applied training in MSE.

### ***Course outline for the workshop for scientists***

The course will cover the technical aspects of MSE in R, including conditioning OMs with fishery data, understanding and developing MPs, and evaluating the expected performance of the MPs using closed-loop simulation testing.

### ***Course goals for the workshop for scientists***

Participants in this course will:

- Be familiar with the openMSE packages (MSEtool, DLMtool, and SAMtool), the open source R packages designed for efficient and transparent building of operating models and conducting MSE;
- Learn how to build OMs for a range of tuna fisheries spanning from data-poor to data-rich;
- Be familiar with a range of types of MPs, and learn how to develop custom MPs in MSEtool;
- Use MSE to evaluate the performance of MPs for a case study based on a chosen tuna fishery.

### ***Number of participants and pre-requisites for the workshop for scientists***

This in-person course will take place in Itajaí, (Santa Catarina State, Brazil), with a **limit of 10 participants**.

The selection of participants will be based on a rigorous evaluation of the applicants' curriculum vitae and professional experience. A Selection Panel, composed of the instructors and the ICCAT Secretariat, will carefully review each application and select participants according to the following criteria:

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2. The applicant must have experience in stock assessment modeling, demonstrating practical knowledge in the field.
3. The applicant must show proven proficiency in R programming and a strong understanding of general concepts in population dynamics, as these skills are crucial for participation in the workshop.

### ***Duration for the workshop for scientists***

- The syllabus of this course will be in-person, and it is designed to run in three days (8 hours per day, totaling 24 hours).





<i>Module</i>	<i>Content</i>	<i>Total (hours)</i>
Introduction to the openMSE Packages	Welcome & overview of course	1st day (4 h)
	Introduction to the openMSE R packages (MSEtool, DLMtool, SAMtool)	
	Overview of key features, objects, and functions	
	Brief demonstration of conducting MSE using MSEtool	

<i>Module</i>	<i>Content</i>	<i>Total (hours)</i>
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	Overview of the population dynamics, fleet dynamics, observation, and implementation models	
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	Build OMs by importing stock assessments	
	Conditioning OMs with fishery data using the Rapid Conditioning Model (RCM)	
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	Data-limited MPs (DLMtool)	
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	Brief overview of designing custom PIs	
Running the MSE	Examining Results	3rd day (6h)
	How PIs are used to rank or eliminate MPs	
	Running the MSE (case study)	
	Robustness Testing	